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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,580	02/09/2001	Gerard Hotier	PET1913	5248

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EXAMINER

CINTINS, IVARS C

ART UNIT PAPER NUMBER

1724

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/762,580

Applicant(s)

HOTIER ET AL.

Examiner

Ivars C. Cintins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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Prosecution before the Primary Examiner is hereby reopened, and the Final Rejection dated August 11, 2004 is withdrawn.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (U.S. Patent No. 4,194,892). The reference discloses a device for separating a compound from a mixture, which device comprises a column (10) comprising a single adsorbent bed (see line 3 of the abstract); and this is all that is required by claims 1-16 and 22-24. Applicant should note that claim 1 only requires the recited fluid distribution and extraction plate with the recited panels when two adsorbent beds are present (see claim 1, line 4). Since the reference system has only one adsorbent bed, all of the recited fluid distribution and extraction plate components are not deemed to be required by this reference. Applicant is advised that an amendment to claim 1 positively reciting the presence of at least two adsorbent beds, such that they are separated by the recited fluid distribution and extraction plate, would overcome this rejection.

Claims 1, 13, 17, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Haase (U.S. Patent No. 4,378,292). The reference discloses a device comprising a plurality of

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adsorbent beds separated by a fluid distribution plate (20 & 21) comprising panels having a single distribution chamber (4), a plurality of lines (6) for extraction or injection of fluids, a bypass circuit having a bypass line (5) which communicates with the distribution chamber (4) and also with a zone (3) distinct from a distribution chamber (see Fig. 1); and this is all that is required by claims 1, 23 and 24. This reference also discloses upper (14) and lower (15) grids for the fluid distribution plate, as required by claim 13; and a central mast (2) as required by claim 17.

Claims 18, 20, 21 and 25 are again rejected under 35 U.S.C. 102(a) as being anticipated by French Patent No. 2,772,634. The reference discloses a simulated moving bed process of the type recited, and further shows a bypass line (e.g.  $L_{1,2}$ ) having an end connected to zone of an adsorbent bed (i.e. 23) distinct from a chamber (i.e. 22) so as to inject part of the main fluid in this zone; and this is all that is required by claims 18, 20, 21 and 25.

Claims 18, 20, 21 and 25 are again rejected under 35 U.S.C. 102(e) as being anticipated by Hotier et al. (U.S. Patent No. 5,972,224) or Ferschneider et al. (U.S. Patent No. 6,146,537). Each of the references discloses separating paraxylene from aromatic hydrocarbons of the type recited (see col. 9, line 54 of Hotier et al.; and col. 8, lines 22-23 of Ferschneider et al.) with a simulated moving bed system comprising a bypass line (e.g.  $L_{1,2}$  of Hotier et al.; and  $L_{i,j}$  of Ferschneider et al.) which is connected to a zone of an adsorbent bed (i.e. 23 of Hotier et al.; and  $CH_j$  of Ferschneider et al.) distinct from a chamber (i.e. 13 of Hotier et al.; and  $CH_i$  of Ferschneider et al.) so as to inject part of the main fluid in this zone; and this is all that is required by claims 18, 20, 21 and 25.

Applicant's arguments filed November 12, 2004 have been noted and carefully considered but are not deemed to be persuasive of patentability. With respect to apparatus claims 1-17 and 22-24, it is agreed that the language in claim 1 that "said zone being distinct from a distribution chamber" precludes the second end of the recited bypass line from being connected to any distribution chamber. Accordingly, the rejections based on French Patent No. 2,772,634, Hotier et al. and Ferschneider et al., applied against these apparatus claims in the previous Office action, have been withdrawn. With respect to the method claims (i.e. 18, 20, 21 and 25), however, it is pointed out that these method claims merely recited that one end of the bypass line is connected to a zone of an adsorbent bed distinct from a chamber (Ci), but do not specify that this zone is not in another distribution chamber. Accordingly, the rejections based on French Patent No. 2,772,634, Hotier et al. and Ferschneider et al., applied against these method claims in the previous Office action, have been maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ivars C. Cintins**  
**Primary Examiner**  
**Art Unit 1724**

I. Cintins  
December 1, 2004